

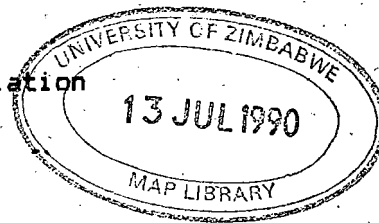
GEOGRAPHICAL EDUCATION MAGAZINE



**GEOGRAPHICAL
ASSOCIATION
of ZIMBABWE**

Geo

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of Zimbabwe



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EDITORIAL

In this edition, I should like to pay tribute to an energetic and enthusiastic group of teachers. While, in other parts of the country, Branches of the Geographical Association of Zimbabwe have either completely collapsed or are, at best, dormant, the geography teachers in Manicaland have shown what can be done.

Last year, this group formed an Association of Geography Teachers of Manicaland and set about organising a workshop for their members. A highly successful workshop was held between April 25th and April 27th, 1984, and was attended by some 70 participants. I am sure that all of us who attended not only enjoyed the occasion, but learned something new. The organisers even managed to persuade two of our Ministers, the Hon. Cde V. Chitepo and the Hon. Cde M. Mahachi to address us on 'Tourism in Zimbabwe' and 'Resettlement and Rural Development' respectively. Both proved that if they ever seek an alternative career, they would be a tremendous asset to the teaching profession!

The Manicaland teachers have now elected to form themselves into Branch of the G.A.Z. and have kindly agreed to host and organise our National Geography Teachers Workshop between September 5th and September 8th, 1984. It is some time since one of these workshops has been held, but I am sure that this one will be highly successful. The theme is 'Geography and Planning' and the Manicaland Branch has organised a varied and authoritative group of speakers.

We now wait, with bated breath, to see if there is any chance of Branches being revitalised in other parts of Zimbabwe, or even of new Branches being created. It is up to you, Geography Teachers.

STOP PRESS:

I'm delighted to be able to announce that the Bulawayo Branch of the Geographical Association has been reactivated and that the Gweru Branch is in the process of doing the same thing.

COME ON HARARE AND MASVINGO!!

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Introduction

The concept of the region is common in everyday life. Everyone has some idea of what the word 'region' means. In ordinary language, the region means an area or tract of land. When we talk about conflicts in the Middle East, or farm problems in the Corn Belt, or drought in Matebeleland we are using the regional concept in its broadest sense as a frame of reference. Thus, whenever we identify some geographical area, we are regionalizing earth-space.

But geographers have to be more specific than this. They have to define just what the Middle East is and what it comprises, or what the precise limits of the Corn Belt are.

Definition of the Concept of the Region in Geography

What really is a 'region'? What does the word mean? The word is derived from the Latin regio, 'the straight line ruled by the augur's staff when he delimited the "regions of the sky"' (Gilbert, 1960, pp 58). Augurs were soothsayers or foretellers. They 'ruled' or divided the sky before they gave their opinions or advice on coming events.

The term 'region' is popularly used to refer to any geographical area that is adopted for the convenience of the user. But in the strict geographical sense, 'it refers to an area in which all places have certain common characteristics by virtue of which it is distinct from the areas around' (Dickenson, 1970, p.41). Thus, a region is a portion of the earth's surface that possesses some characteristic properties which distinguish it from other such areas. A region is homogeneous according to the criteria used to define it. It is this homogeneity that gives the region an intrinsic wholeness and 'social unity'.

'A region is a part of the earth's surface in some specific locale, in which certain predetermined criteria are met' (de Blij, 1974, p.149). There is no single criterion or set of criteria that will yield regions appropriate for all circumstances. Regions are most commonly valid only for the specific purposes for which they are designed. The boundaries of the region are thus determined by the criteria. They cannot be found in reality. A region's boundaries are based on some established criterion. For example, the boundary around the Corn Belt may be drawn where 50 per cent of the farmland is under corn. However, this is open to criticism, for someone else may argue that 60 per cent is a more appropriate criterion to use. "Thus regions are absolute. They are artificial constructs or intellectual devices designed to function as organizing concepts in geography" (de Blij, 1974, p. 150).

Every region has a core area where homogeneity is greatest. This core area differs noticeably from neighbouring core areas. Beyond the core area lies a marginal area. Regional boundaries are usually not lines, but rather transitional zones that partake of the character of the adjoining regions or cores. The width can vary from a few metres to many kilometers. The distinguishing features of one region melt gradually into those of the neighbouring region, save, for example, along the shore of a large body of water. Thus, regions lack clearly defined boundaries. This causes a dilemma in geography, where the drawing of firm boundaries is required.

Most regions are not fixed. Instead of having static boundaries, they have everchanging ones. For example, when man pushes wheat cultivation further north in Canada, further west in Kansas, or farther north east in the U.S.S.R., he is responsible for changes in geographical regions. Another example of the shifting boundary of a region is the Sahara Desert which is extending southwards. This may be of such significance in the regional totality that the shifting of cultivation limits or desert limits requires similar shifting of regional boundaries.

Contrasts in Definition

There is a difference between what the Western and Soviet geographers consider to be the essence of regions. The western geographers argue that regions are subjective mental constructs meant to facilitate study. But the Soviets refute this. They say the region exists objectively in the natural environment.

"Dividing a continent into regions is a matter of 'scientific generalizing' and not, as someone once remarked, 'merely a pedagogical device to facilitate the presentation of geographical material to classes of students'" (White, et al. 1964, p. 5). Any type of region represents a generalisation of the actual complexity of the face of the earth. When a geographer makes a map, he is reducing the distance by some ratio, a process called homorphic mapping. Since the face of the earth is too large for man, the observer, to gain any useful knowledge about the occupied space, it is necessary to define categories through the selection of things to map, omitting others that occur in the same area but are considered to be irrelevant.

To illustrate this, suppose a geographer in the field is mapping land-use, and before him is a fenced-in, square area planted with maize. The geographer will map this as a homogeneous, uniform region, based on the criteria of the growing crop. But a closer examination of this plot brings two interesting facts to light. First, there is more bare ground between the rows of maize than the total proportion of the field in which maize is actually growing. Second, since the field is not well-cultivated, there are more weeds than maize plants by actual count. Weeds are never mapped because, in studying landuse, only those features that are relevant to a specific purpose are selected for mapping.

This shows that all regions are hypotheses. They are drawn for particular purposes, and are judged good if they fulfill these purposes. Regionalization involves the selection of criteria to define categories of regions, the testing of these criteria, and the identification of the criteria that most effectively select from the complex totality of inter-related elements just those that are relevant to a particular problem.

Therefore, a 'true region' does not exist. A region '... is an intellectual concept, an entity for the purpose of thought, created by the selection of certain features that are relevant to an areal interest or problem and by the disregard of all features that are considered to be irrelevant' (James and Martin, 1981, p.372). It is only an intellectual concept useful for a specific purpose.

The regions that are defined at one scale tend to disappear when the scale of mapping is increased or decreased. For example, when the maize field is examined more closely, weeds will be included. Thus there is no such thing as a 'unit area', that is, an area so uniform that it cannot be further subdivided. The identification of an area of whatever size is a generalization made by selecting only the relevant items.

The Soviets refute this idea of regions being intellectual constructs. In the U.S.S.R. the region is always regarded as an objectively existing reality. The idealistic concept of a region as a mental construct entered Soviet science from abroad only in the last decade before the Revolution. But it was phased out of existence during the Soviet period, and was rapidly eliminated by the victory of the Marxist-materialistic point of view. Thus, the concept which is still widely used in the West never took firm root in the U.S.S.R.

The idealistic denial of the objective existence of regions leads either to a nihilistic ignoring of the regions themselves or to a completely arbitrary "intellectual region-formation", which certainly does not promote the "prestige" of the regional concept', according to the Soviet geographer, V.V. Potshishevskiy (1966, p.6). The Soviets believe that the process of regionalization emerges not as a 'cutting up' of the country into territorial parts for study convenience, but as a systematic uncovering of actually existing integrated territorial units. Regions exist outside the consciousness of the researcher, but, in the course of research, they may be identified as existing apart from the researcher, as an outside reality.

Problems of Defining a Region

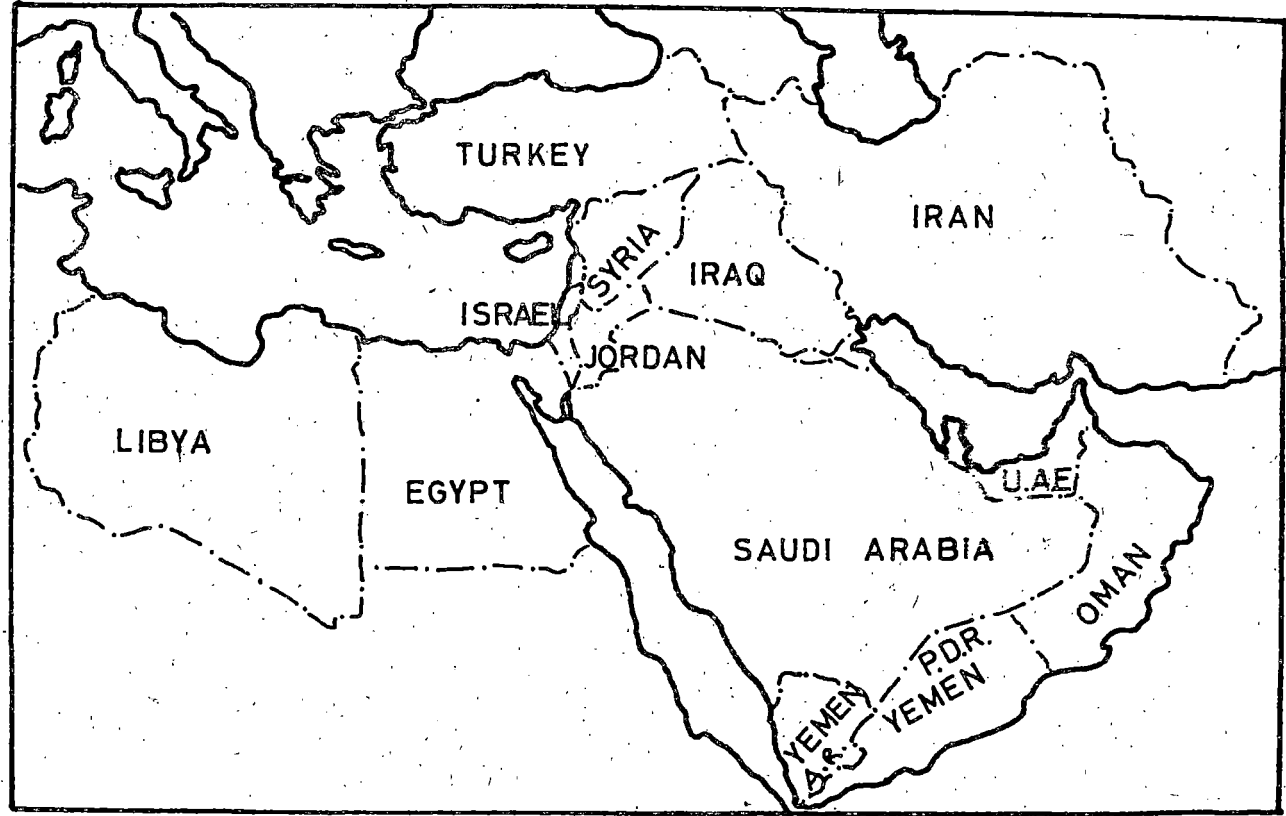
Setting the boundaries of regions is also problematic, just as the criteria that define boundaries are open to criticism. Although many regions have boundaries that are universally accepted, the boundary that one puts around an area may not be seen as suitable by someone else. The Middle East is a good example of such a problem region.

The problem is to determine which countries constitute the 'Middle East'. 'After many years of debate, acrid at times, and although the area has risen to a position of major world importance, the term "Middle East" still cannot command universal acceptance in a single strict sense' (Fisher, 1978, p. 1).

The term 'Middle East' was coined in 1902 by the American naval historian, A.T. Mahan, with reference to the area around the Persian Gulf. He saw this as the logical intermediate definition of the area between the 'Near East' and the 'Far East'. This label was widely used during the First World War. During the Second World War, the military bases and organisations previously located mainly around the Persian Gulf were expanded greatly. The term 'Middle East' extended westwards with the tides of war, so that in the end, the area from Iran to Libya was named the Middle East. Table 1 shows the countries that have been labelled under the 'Middle East' by a few of the many sources.

MAP 1.

THE MIDDLE EAST



Map 1 shows the countries which comprise the Middle East, according to W.B. Fisher. This is the area most commonly referred to as the Middle East. "Perhaps the most that a geographer can say, taking refuge in semantics, is that it can be regarded as a "conventional" regional term of general convenience, like Central Europe or the American Middle West, with many definitions in more detail-feasible and logically possible", says W.B. Fisher (1978, p.1) with reference to the term, the "Middle East".

Table 1

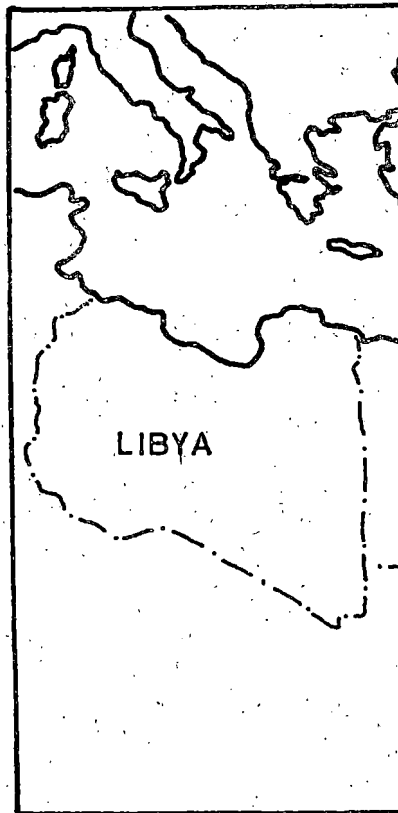
Political Definitions of the Middle East

Source	Countries
D.G. Hogarth, <u>The Near East</u> 1902	Albania, Montenegro, Southern Serbia, Bulgaria, Greece, the Ottoman Lands of Asia, the entire Arabian peninsula, the southern two-thirds of Persia.
Middle East Air Command. (Great Britain, on the eve of World War II).	Egypt, Sudan, Kenya.
Commander in Chief, Middle East Operations World War II.	Egypt, Sudan, Cyprus, Iraq, Aden, British Somaliland, the Persian Gulf area (a region within a region!), Eritrea, Libya, Greece, Crete, Iran.
Middle East Institute, Washington, D.C. (post-World War II).	Morocco to East Pakistan and Russian Turkestan.
American Friends of the Middle East - Executive Vice President, 1953-54.	'The Middle East can be defined as comprising those countries between the Pillars of Hercules and the Straits of Macassar in which, if an injustice is perpetrated in one, a protest will be raised in others - plus Israel'.

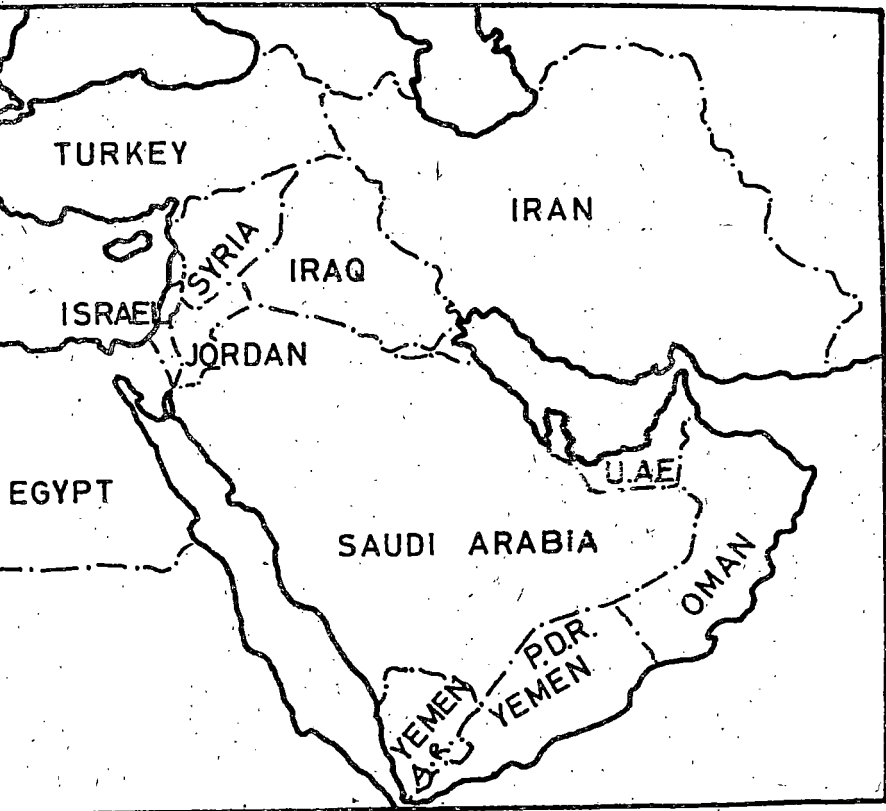
Source: Kolars and Nystuen, 1974, p.160.

MAP 1.

THE



MIDDLE EAST



There are several characteristic features of the area, but these are not sufficient to define the region that may be called the 'Middle East'. The area has desert, but this cannot be used as a criterion since deserts are found on every continent except Europe. The Middle East cannot be said to be the area where the Arabs live, for Arabs are found in many other countries, and comprise a significant proportion of the population of parts of East Africa. Moreover, other parts of the Middle East are populated almost entirely by Jews (Israel), Turks (Turkey, north west Iran, Soviet Central Asia) and Persians (Iran). The geographical distribution of Islam also fails to adequately define the Middle East, since Moslems are found in other parts of the world such as East Africa, Bangladesh, Western Pakistan and Indonesia.

Thus there are no criteria that can adequately define the Middle East.

However, a region is an area that possesses some kind of homogeneity which makes it distinct from the area around it. The region is homogeneous according to the criteria used to define it. All Western geographers agree that regions are intellectual concepts that do not exist in reality. In contrast, the Soviet geographers believe that regions exist objectively in nature. It is difficult to put a boundary around some regions. This is because drawing a boundary around a region is based on the criteria one chooses. But someone else can question these criteria. As a result, 'the idea of the region is a difficult and complicated theme' (Gilbert, 1960, p. 157).

An Historical Background of the Concept

The concept of the region is one of the very earliest in geography, having come into existence in the early eighteenth century. Notable pioneers of the concept include Carl Ritter, Alexander von Humboldt and Paul Vidal de la Blache. Since it came into existence, the concept has undergone changes.

'Geographies before the mid-eighteenth century were utilitarian encyclopaedic compilations without orderly presentation or general principles of areal distribution and with reference only to existing political units' (Dickinson, 1969, p.14). For example, Europe, the best known and most fully described part of the world, was at that time 'divided into a crazy interlocking mosaic of political divisions' (ibid). The boundaries were not permanent. Therefore, these divisions could not be used as a rational base for description.

The new ideas of geographic description were primarily due to German and French scholars. They were the first to use natural or physical land units, instead of political units, as a basis for description of both land and people.

An example of an early writer who used political units to define the earth's surface was Anton Friedrich Busching. In his book Neue Erdbeschreibung, (1754), he sought to provide 'a description of the known surface of the earth'. He used political units as the basis for regional description. He, together with other geographers of his time, developed the art of regional descriptions with a rigid and artificial framework.

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The most notable earliest regional geographer was Carl Ritter (1779-1859), a German. He realized the need for divisions, other than political, for detailed study of the earth. In his book, *Erdkunde*, Ritter looked at the regions into which he subdivided each of the continents. His aim was "to establish some kind of order out of the apparent chaotic distribution of land and water" (Dickinson and Horwath, 1933 p. 156).

Ritter studied the form and configuration of continents, which he divided into four major groups. These are the highlands and plateaux, the mountains, the low-lands, and finally, the transitional regions between high-lands and lowlands called lands of gradation or terrace lands. Ritter studied the continents of Africa and Asia, on the basis of whose configuration he derived his classification of landforms. He conceived each continent as being built on the same plan. At the heart of each continent is a highland, around which are grouped subsidiary physical units, the lands of gradation, followed by peripheral lowlands. Surrounding all these structures are peninsulas and islands.

'Superficial as the scheme maybe, it afforded a new regional method of description, as distinct from the usual modern method of dealing by political units' (ibid).

However, Ritter's approach had some shortfalls. His conception of geography was vague, because his method lacked an aim and data. As a result, he included a lot of material irrelevant to geography. He was less concerned with the cause of natural conditions than with their effect upon man.

Ritter had two major handicaps. First, his teleological philosophy prevented rational treatment of the subject, and second, there was a lack of appropriate data for detailed work. Thus, his method was not based on scientific principles, and his descriptions lack systematization and correlation of human phenomena with natural regions. Ritter visualized the idea of a region, but failed to apply it. In his *Erdkunde*, he dealt with some areas he had never seen. Although Ritter "... bade his pupils to proceed from observation to observation (he) appears to have been little of an observer himself. He uses the eyes of others much more than his own. Yet he lived in an era when science had just begun to find its eyes" (Freeman, 1961, p. 35).

Also working at the same time as Ritter was Alexander von Humboldt (1769-1859), a Frenchman. Both of them wrote on regionalisation of the earth, but had different aims. 'Ritter was actuated by a desire for a world view; von Humboldt concentrated largely, though not exclusively, on physical features, climatology and vegetation' (ibid, p. 33). L. Kramer stated that another difference between the two is that 'von Humboldt has given us first hand observations and measurements; Ritter methodological concepts' (ibid. p. 34).

Alexander von Humboldt was the first person to apply the regional method of description with worthwhile results. He worked in central Asia, Mexico and the Llanos, where he studied the distribution of plants. But von Humboldt did not suggest any regional divisions.

Paul Vidal de la Blache was also one of the earliest exponents of the concept of the region. Vidal de la Blache (1848-1918) was the founder of the modern school of geographical thought in France. He insisted that geographical research and training should concentrate on the study of particular areas, "... small and accessible enough for thorough study in the

field, among people, and in the stacks of archival library" (Dickinson, 1969, p 214).

Vidal de la Blache did not mean by 'region' a clearly bounded area in space as a frame of areal description. He made reference to the search for the areal interdependence of terrestrial phenomena within an area that is selected on a broad basis of simplicity or uniqueness as a convenient areal unit of operation.

Vidal divided France into natural regions, each with a well-marked character. He discovered that these regions were different from those used for the purposes of administration. He also observed that the towns of France had considerable economic influence over the country which surrounded them. As France's economic development had progressed, the attractive power of the major provincial centres had increased. He described these towns as 'noeuds' - the nodes of economic concentration. Thus, the idea of nodal regions was born. In 1910, by balancing the natural regions with the nodes, he produced a scheme of seventeen administrative regions (Map 2).

Vidal stated that boundaries should not be drawn between natural and cultural phenomena, for they are inseparable. In an area of human settlement, man causes changes in nature. Each community has its own response to prevailing natural conditions, so that it has characteristics not found in other places where the natural conditions are the same. Vidal maintained that the area over which such an intimate relationship between man and nature has developed constitutes a region. 'The study of such regions, each one of which is unique, should be the task of the geographer. Vidal therefore argued for regional geography and against systematic geography as the core of the discipline' (Holt-Jensen, 1981, p. 27).

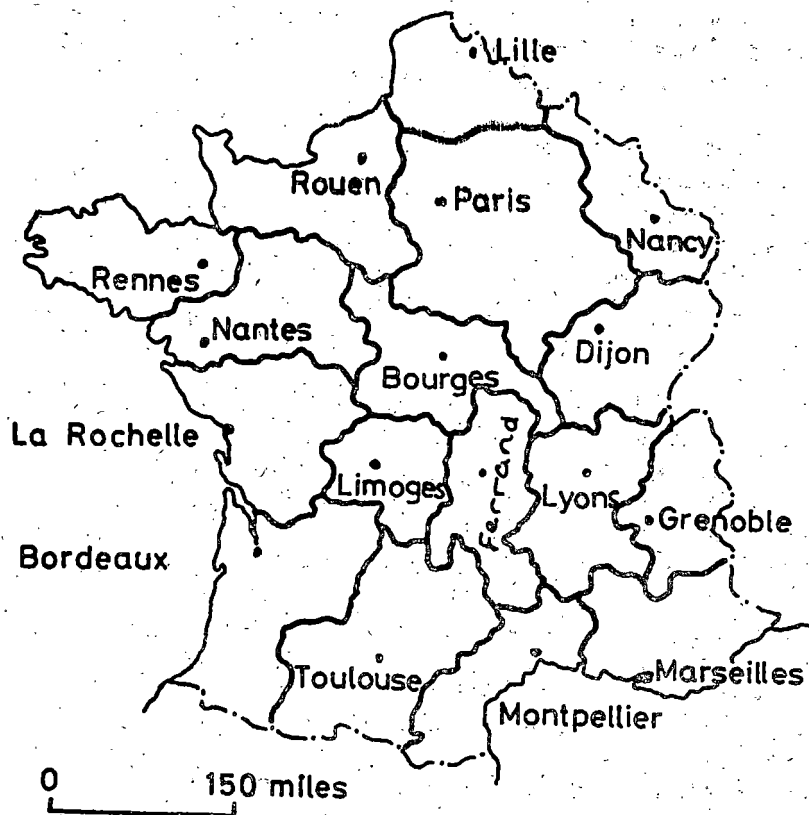
Thus, the concept of the region has a long history, during which it has been developed. Today, unlike during the early stages of its development, the concept is well developed. It has a solid base of scientific principles and more appropriate data is available for detailed study. Also, geographers now have more information available at their disposal. None of these were available to the early regional geographers.

The Characteristics and Types of Regions

A region is a tract of the earth's surface with characteristics, either natural or of human origin, which make it different from the areas that surround it. Thus, regions differ from each other. Each region has characteristics which make it distinct from other regions. The characteristics include location, area, homogeneity, criteria defining it, and its position in the regional hierarchy.

Each region has a specific location or position on the earth's surface. Thus, regions such as the Amazon Basin, the Corn Belt, the Sahara, the Middle East or Matabeleland, all have specific locations somewhere on the earth's surface. The location of a region can be identified by using the grid system. This describes it by degrees of latitude and longitude. This would be the region's absolute location. For example, Europe lies approximately between latitudes 35 degrees and 75 degrees north and between longitudes 10 degrees west and 30 degrees east. Such a numerical index does not have much value. A more meaningful criterion is the relative location which relates it to other locations. For example, the Corn Belt can be more

FRANCE :
REGIONS PROPOSED BY V. DE LA BLACHE



— Boundary of Region

• Regional Centre

(After Gilbert, 1965, pp. 349)

effectively considered by identifying it with reference to the climatic region in which it lies, that is, the warm temperate climate, and the soil region over which it extends; namely, the prairie and chernozem soils.

Regions also have area. This may seem obvious, but it creates problems. If a region has an areal extent, then it should have boundaries. But drawing boundaries around most regions is problematic, since one region graduates into the next. For example, a line cannot be drawn where the Rocky Mountains end, since they peter out in a marginal belt of lower hills before they give way to true plains such as the adjacent Great Plains.

Regions have internal sameness or homogeneity, which makes them unique. Each region has something that unifies it. For example, the Congo Basin is characterised by dense forest, high temperatures and humidity. Professor R. Hartshorne (1964) defines a region as 'an area of specific location which is in some way distinctive from other areas which extends as far as that distinction extends'. This distinctiveness may be physiographic, natural or cultural.

The region is defined by criteria inherent in the category to which it belongs, not by traits that pertain to other categories of regions. For example, a climatic region is not defined by vegetation. By means of separate analyses, different kinds of regions are kept distinct from each other. This is so even where they occupy the same, or almost the same area, as do the Mediterranean climate and the Mediterranean vegetation.

The region occupies a fixed position in a hierarchy of regions of the same category. Each successively higher rank consists of aggregations of regions of the next lower rank. An example of such a hierarchy is that of the administrative regions of the U.S.A. They range from minor civil divisions, through counties, states, to the United States. No region can belong to more than one rank in the hierarchy.

Types of Regions

There are different types of regions. Geographers draw a distinction between regions on two main grounds. First, regions are distinguished by the features that characterise them, which may be singular or plural. A region distinguished by one feature is called a single-feature region. In each case, single-feature regions delineate an individual phenomenon that is examined in relation to other phenomena in a search for accordant relationships.

In contrast to single-feature regions are multiple-feature regions which are differentiated on the basis of a combination or association of features. More than one criterion is used to define such a region. Multiple feature regions can be constructed through matching single-feature regions, or they may be sufficiently distinctive and cohesive to be observed and mapped in the field. Examples of multiple-feature regions are the Amazon Basin and the Sahara Desert, both defined in terms of climate, vegetation, soil and animal life.

The second major attribute on which geographers draw a distinction between regions is by their degree of spatial organisation. On this basis, there are three types of regions; uniform, nodal and administrative regions.

Uniform regions, also called formal or homogeneous regions, are defined by the presence or absence of a particular distinguishing feature or criterion. Uniform regions are uniform or homogeneous throughout according to the phenomena chosen, and within the limits of the criteria. The homogeneity can result from recurring, often repeated patterns. For example, any one farm has different crops in different fields, but all the surrounding farms show the same combination of crops.

But uniformity of these regions is not complete throughout. This is because there is always a certain range of characteristics permitted by the criteria and there are irrelevant differences which are disregarded. But within the limits set by the criteria, regions of this kind are uniform. If it is a multiple-feature region, its uniformity is in terms of the association of features.

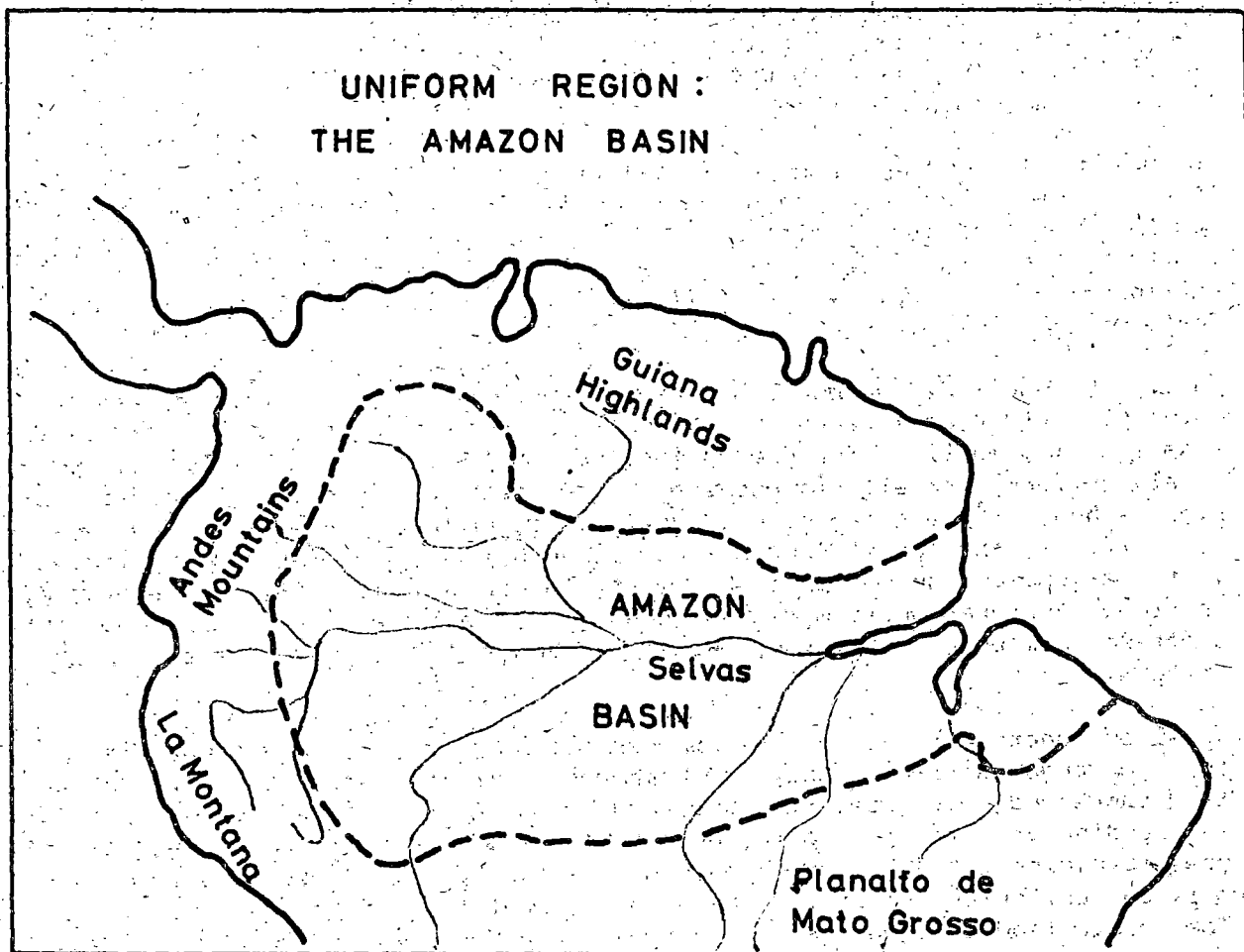
Thus, the uniform region is homogeneous because all parts of its area contain the feature or features by which it is defined. The Amazon Basin is an example of a multiple-feature uniform region (Map 3). No region is absolutely uniform, for all regions are generalisations based on selected criteria. Thus, the single-featured uniform region drawn at a very large scale (that is, in the lowest rank of the hierarchy) contains the fewest irrelevant features, and so approaches most closely to uniformity. The large, multiple feature uniform regions drawn on a very small scale include the greatest number of irrelevant features, and so they are the least strictly uniform.

Nodal or functional regions are homogeneous with respect to internal structure or organisation. They are homogeneous in the sense that all contrasting parts under consideration are focused on a central place or node. The surrounding area is tied to the node by lines of circulation. The area of newspaper circulation is an example of a single-feature nodal region because only one criterion, that is, newspaper circulation, is used to delimit it. The hinterland or trade area of a town is an example of a multiple-feature nodal region (Map 4).

Nodal regions of like character may lie adjacent to each other, or one such region may be surrounded by nodal regions of different character. A nodal region may coincide with other nodal regions of different character, selected by the application of different criteria. The nodal regions are bounded by the disappearance or weakening of the links to their focal points, in favour of some other focus.

A focus or node may be connected to the region in one of several ways. It is the focus of only those topics under consideration. The node may be the focus of two regions or more. For example, Harare is the centre for Mashonaland Province, whilst at the same time it is the capital city of Zimbabwe. (Map 5). Also, the focus of an economic region may be outside the region itself. A good example is Rotterdam which is outside Switzerland for which it acts as the main port.

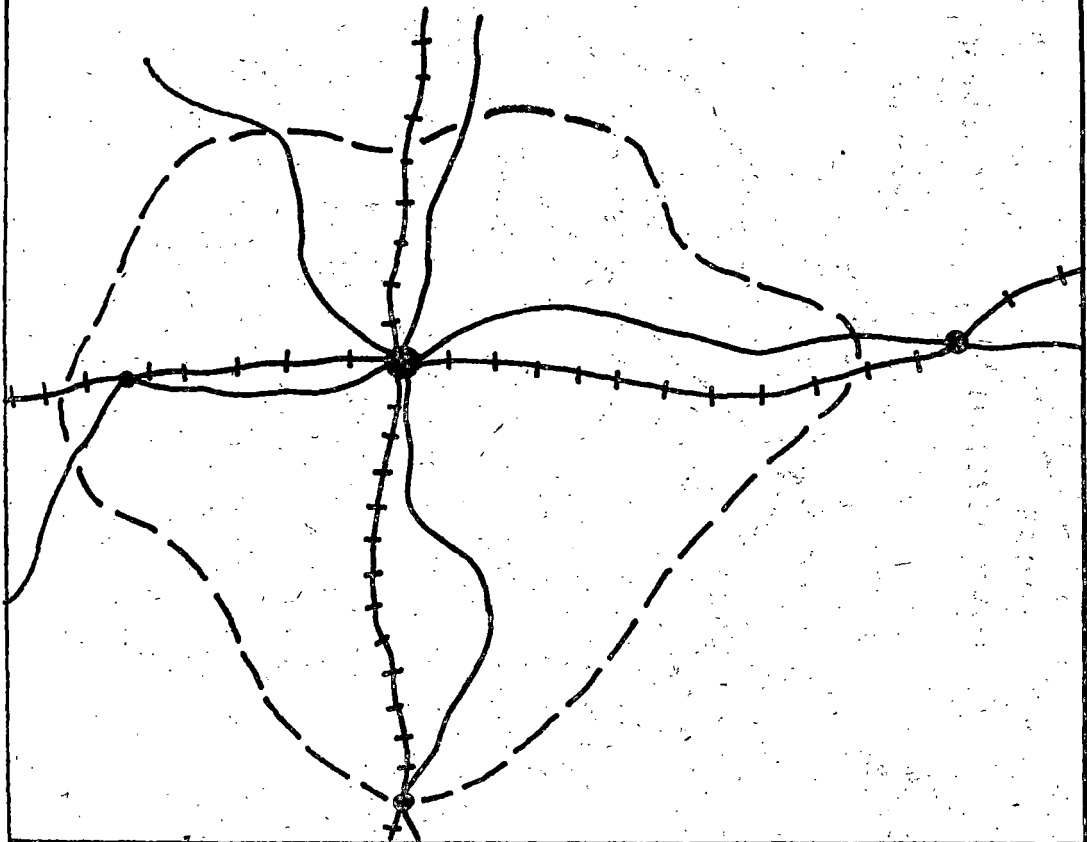
The nodal region is enmeshed by a pattern of circulation. The circulation may be of mobility or communication, such as the exchange of people, goods, ideas and telephone calls. The focus is linked to the remainder of the region by ties of different intensity and characteristics. Distance weakens the ties of the focus as the perimeter of the region is approached. Such conditions as terrain and the patterns of trade restriction also modify and distort the simple effect so much that the ideal concentric pattern is not developed.



(After de Blij, 1974 , pp. 149)

MAP 4

NODAL OR FUNCTIONAL REGION:
THE HINTERLAND OF A CITY



- Major city
- Town
- Hinterland of city
- +---+ Railway
- Major road

Administrative or executive regions are ones where administrative or executive action takes place. These are delimited on an *ad hoc* basis for the purposes of administration and organisation. Such regions may or may not overlap. Administrative regions may exhaust the study area, or be confined to any part of that area.

There are two types of administrative regions. First, are those that are well-known and can be marked on a map. Such regions are more permanent and numerous. Examples of such regions are provinces, counties and parishes. Map 5 shows the administrative provinces of Zimbabwe. The second type of administrative region is that which is brought into being for a particular purpose. Such regions are temporary, and are sometimes forgotten when their purpose has been served. Examples of this type of region are planning and census regions.

Therefore, there are three types of regions, namely uniform, nodal and administrative regions, each of which may be determined by either single or multiple criteria. As to which of these three is the most important to geography, Frey (1975) says 'At one time the answer would have been unequivocally uniform or homogeneous regions, but since the war, the other two have become a lot more important.' The nodal region is now increasingly important due to the present phenomenal growth of cities. Administrative regions are important because of the considerable growth of planning, and also because most data, especially socio-economic, is collected according to administrative regions. Census data is a good example of this process.

The Procedures of Regional Study

Among geographers, there is considerable difference of opinion regarding the procedure of how areas can be differentiated and regions recognized. But despite the conflicting opinions regarding the procedure of regional study, the underlying purpose in all cases is the same, namely, 'to reach a fuller comprehension of the order of earth-space' (Whittlesey, 1954, p.31). There are two main approaches to regional study, the regional approach, and the topical approach.

The regional approach to regional study starts with the homogeneous area. The area is examined to discover its components and connections. The region is analysed with respect to the various elements which, in association, give it character. The region, seen as a complex association of features, guides the procedure. Thus the regional approach to regional study first identifies the region, brings out its internal arrangement, and then measures the region's relations with other regions.

The topical approach, in contrast, starts with the problem. There is a question of cause and effect to be answered, or a question of policy to be clarified. The topics or features relevant to the problem are defined, and their regional patterns brought out separately and compared. Accordant areal relationships are identified by cartographic analysis. Thus, the topical approach to regional study emphasizes the need to seek for the significance of observed order in terms of causes and consequences.

Therefore, the regional approach focuses on the areal homogeneities that are apparent on the face of the earth. The quality of the homogeneity, the internal connections and the external relations of the areas are closely examined. The topical approach finds its challenge in unsolved questions of the relationship between process and phenomena, of the modifications of

process in particular places, and of the areal relations of phenomena. The regional approach seeks the greatest possible synthesis, whilst the topical approach seeks the most complete analysis.

But in spite of the difference in the two approaches to the study of regions and the results obtained by the use of either of the two approaches, 'the largest measure of progress in regional study seems likely to be achieved by the successful merging of the two approaches' (Whittlesey, 1954, p32).

Regional Hierarchies

Geographers have attempted to define regions in scale terms. They have ranked regions into successive groups on the basis of size.

Fennemann, in 1916, was the first person to work out a regional hierarchy based on scale. He recognised districts as the smallest regions, then sections, provinces, and finally major divisions. (Table 2). In 1933, Unstead put forward a scheme which filled in, at the lower levels, the system Fennemann had begun at the larger scale. Later, in 1949, Linton integrated Fennemann and Unstead's hierarchies into a seven-stage scheme. Linton's scheme runs through the whole range from the smallest unit, the site, to the largest, the continent.

Table 2

Comparative Scales and Terminology of Regional Hierarchies

Approx. size (sq.mi.)	Fennemann 1916	Unstead 1933	Linton 1949	Whittesley 1954	Map scales for analysis
0					
10			site		
10		stow	stow	locality	1/10 000
2					
10	district		tract		
		tract		district	1/50 000
3					
10	section		section		
		sub-region		province	1/1 000 00
4					
10	province		province		
		minor region			
5					
10	major division		major division	realm	1/5 000 0
6					
10		major region	continent		

(Source: Haggett, et. al., 1977)

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(Source: Haggett, et. al., 1977)

More recently, D. Whittesley (1954) presented a 'hierarchy for campages'. Together with the hierarchy were details of the appropriate map scales for study and presentation. He used a model study of Zimbabwe (then Southern Rhodesia) to illustrate his model.

There are two main methods of arriving at regional systems, the synthetic and analytical methods. Synthetic regionalisation is frequently used by geographers. The term was first coined by J.F. Unstead (1916), who argued that the smallest unit area of the earth's surface is a feature. Features can be grouped on resemblance to give first order regions called stows. Such classes can be successively grouped into higher order categories called tracts, sub-regions, minor regions and major regions.

A.J. Herbertson (1905, 1913) proposed the analytical approach to regionalization. He obtained his regional system by beginning with the world. He divided this into sub-classes on the basis of a number of principles.

Therefore, the synthetic method starts with the lowest-order region and works up to the highest-order region. The analytical method works in the opposite direction. R. Hartshorne (1939) concluded that these two processes are complementary and not mutually exclusive.

Criticisms of the Concept of the Region

The concept of the region has not gone unchallenged. The most notable critic has been Professor G.H.T. Kimble in his paper, The Inadequacy of the Regional Concept. However, 'the critics of the new concept did not attract as much attention as the sponsors of it' (Kimble, 1969, p. 152).

Kimble has levelled many criticisms against the concept. First, he states that the concept is now obsolete. 'The region is an eighteenth century concept: the world that fathered it now lies "mouldering in the grave"' (Kimble, 1969, p. 151). Thus it is no longer useful in today's conditions which are different from those that prevailed when the concept came into existence two centuries ago.

He goes on to say that the present day supporters of the concept are divided into two camps. First are the followers of Herbertson who 'make the region serve as the plastercast of a specific kind of human economy'. Second are those who focus attention on cultural distributions, and regard the region as an area in which a functionally coherent way of life dominates, or an area which is dynamically homogeneous with respect to certain inter-related characteristics in the make-up of society. The second school of thought is more influential than the first one.

But the followers of the second school are united more by their disagreement than by their beliefs. They are still looking for the correct terms that will satisfy everybody's requirements. The words they are still using are not meaningful. For example, no-one can tell when an area is, or is not, 'functionally coherent'. Moreover, 'coherence is not a measurable quantity, and so its presence or absence cannot be confirmed'.

Third, is the problem of delimiting regional boundaries. Regions have no precise boundaries, which makes it hard to delimit them. For example, the Wheat Belt of America merges almost imperceptibly into the Hay and Dairy Belt to the east and the Corn Belt to the south. Thus, when the regional

geographer delimits the regional boundaries, he is 'trying to put boundaries that do not exist around areas that do not matter' (Kimble, 1969, p 159). John K. Wright described regionalisation as the 'trashcan approach' because it consists of describing the contents of an arbitrarily defined container.

Fourth, Kimble says that if there is such a thing as a true region, it must be capable of measurement. It is no defence to say that we are dealing with dynamic boundaries, because it is impossible to tell how dynamic the boundaries are unless a datum line has been drawn.

Fifth, Kimble asks what methods can be used to measure the operation. Contours? Isotherms?

Lastly, as Hettner also observed, is the difficulty of selecting the appropriate criterion to determine the region. The choice must be made by the individual geographer according to his subjective judgement of their importance. 'There is no universally valid regional division which does justice to all phenomena' (ibid, p 158). Hartshorne admits that regions are merely fragments of land whose determination involves a considerable degree of arbitrary judgement.

Thus Professor Kimble feels that the regional concept is grossly inadequate. He himself has not gone unchallenged for his criticism. A.F. Martin (1958) says that Kimble's essay '... is a flogging of dead horses, carried out with a gaiety of wit, a zestful insouciance of language and a fine disregard of logic which make it both entralling to read and fatally misleading to digest inwardly' (Gilbert, 1960, p 159).

Conclusion

'Despite heavy criticism, typified by Kimble's essay on the Inadequacy of the Regional Concept (1951) and some stout defence (for example, Minshull, 1967), regions continue to remain one of the most logical and satisfactory ways of organising geographical information' (Haggett, et al., 1977, p 450-451). The region is as important to geography as the 'period' is to history.

The region is not of paramount importance to geography only, but also to other disciplines such as planning. Governments extensively use the region to collect data and to carry out planning programmes and development projects.

The region is also used as a frame of reference. The best example is the division of the world into the First, Second and Third Worlds, depending on technological advancement. The First World consists of the Capitalist orientated technologically advanced countries. These are rich countries. The Third World consists of the less developed countries (L.D.C.'s). These regional divisions are widely accepted and understood.

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